

A master control system for a rolling mill, especially a mill train, the rolling mill, especially the mill train, having at least one rolling stand driven by means of a drive system, and the master control system having an automation device for the open-loop and/or closed-loop control of the rolling stand. The master control system also has a commissioning computer for the commissioning of the drive system and of the automation device.—

A “Version With Marked Changes Made” is submitted herewith.

IN THE CLAIMS:

Please cancel original claims 1-10 in the underlying PCT application, without prejudice.

Please add new claims 11-23, as follows:

--11. A master control system for a rolling mill, comprising at least one rolling stand, driven by a drive system, an automation device for the open-loop and/or closed-loop control of the rolling stand, and a commissioning computer, wherein the commissioning computer is designed for the commissioning of the drive system and of the automation device, and has at least one bus system for the transmission of operating parameters and/or program code from the commissioning computer to at least one component comprising the drive system and the automation device, and further

wherein the bus system is designed for the transmission of information necessary for the operation of the rolling mill between the drive system and the automation device.--

--12. The master control system according to claim 1, further comprising an operator-control computer for monitoring and/or influencing the rolling mill and wherein the commissioning computer is designed for the commissioning of the operator-control computer.--

--13. The master control system according to claim 2, wherein the bus system is designed for the transmission of operating parameters and/or program code from the commissioning computer to the operator-control computer.--

--14. The master control system according to claim 3, wherein the bus system is designed for the transmission of information necessary for the operation of the rolling mill between the operator-control computer and at least one of the components comprising the drive system and the automation device.--

--15. The master control system according to claim 1, further comprising at least one first bus system for the transmission of operating parameters and/or program code from the commissioning computer to the automation device, wherein the commissioning computer and the automation device are connected by a data link, and at least one second bus system for the transmission of operating parameters and/or program code to the drive system, wherein the automation device and the drive system are connected by a data link.--

--16. The master control system according to claim 5, wherein the second bus system is designed for the transmission of information necessary for the operation of the rolling mill, between the automation device and the drive system.--

--17. The master control system according to claim 5 further comprising an operator-control computer for monitoring and/or influencing the rolling mill, wherein the operator-control computer is connected to the first bus system by a data link, and the first bus system is designed for the transmission of information necessary for the operation of the rolling mill between the operator-control computer and the automation device.--

--18. The master control system according to claim 1, further comprising at least two automation devices of different types and wherein the commissioning computer is designed for the commissioning of both automation devices.--

--19. The master control system according to claim 1, wherein the rolling mill is a mill train.--

--20. A rolling mill comprising at least one rolling stand driven by a drive system, and a master control system with an automation device for the open-loop and/or closed-loop control of the rolling stand, and a commissioning computer, wherein the commissioning computer is designed for the commissioning of the drive system and of

the automation device, further comprising at least one bus system for the transmission of operating parameters and/or program code from the commissioning computer to at least one component comprising the drive system and the automation device, and wherein the bus system is designed for the transmission of information necessary for the operation of the rolling mill, between the drive system and the automation device.

--21. A rolling mill according to claim 10, wherein said mill is a mill train.--

--22. A method of operating a rolling mill, comprising utilizing a master control system comprising a rolling mill, having at least one rolling stand driven by a drive system, an automation device for the open-loop and/or closed-loop control of the rolling stand, and a commissioning computer, wherein the commissioning of the drive system and of the automation device takes place by means of the same commissioning computer, and further comprising a bus system for the transmission (i) of operating parameters and/or program code from the commissioning computer to at least one of the components comprising the drive system and the automation device, and (ii) of information necessary for the operation of the rolling mill, between the drive system and the automation device.--

--23. A method according to claim 12, wherein the rolling mill is a mill train.--